

NEMETS, S.N.; NESTEROVA, I.M.

Observed indices of the changes in the oil quality due to the frying in it of raw vegetables. Kons. i ov.prom. 17 no..:4-7 Ap '62. (MiRA 1):3)

1. TSentral'nyy nauchno-issledovatel'skiy institut konservnoy i ovoshchesushil'noy promyshlennosti. (Canning and preserving) (Oils and fats, Edible--Testing)

NEMETS, V.G.; TSYBAYEVA, G.G.

Synthesis and study of β-flucroethyl-β'-chloroalkylamines. Trudy
LTI no.60:49-55 '60. (MIRA 14:6)

i. Kafedra tekhnologii osnovnogo organicheskogo sinteza
Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.

(Amines)

NEMETS, V.G.; TSYRAYEVA, G.G.

Study of the hydrolysis of β-fluoroethylamines. Trudy LTI nc.60:56-62 '60. (MIRA 14:6)

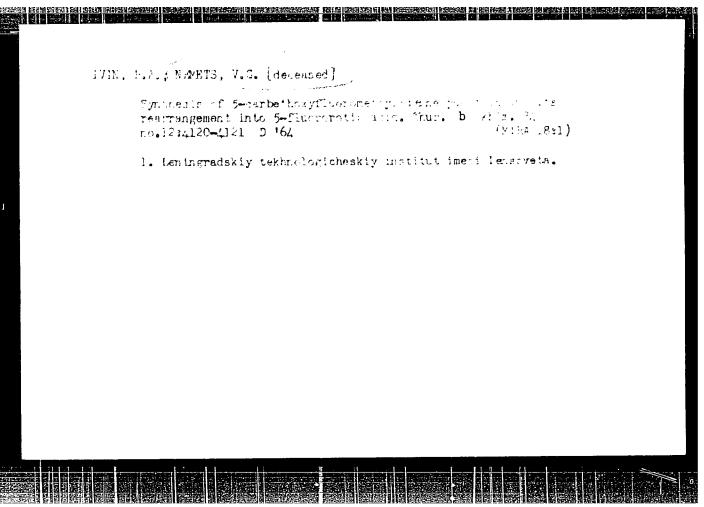
1. Kafedra tekhnologii osnovnogo organicheskogo sinteza Leningradskogo tekhnologicheskogo instituta imeni Lensoveta. (Ethylamine)

NEMETS, V.C.; EPSHTEYN, G.L.

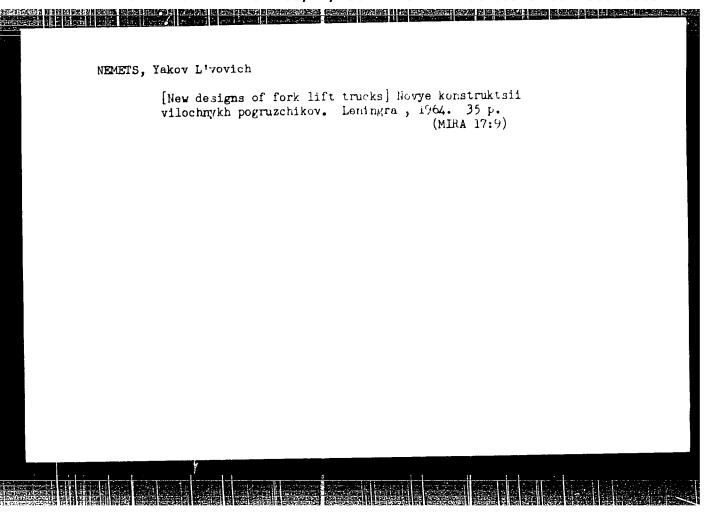
C-fluoroemines. Part 1: 2- and 3-Fluoroalkylamines. Izv.vys. ucheb.zav.; khim.i khim.tekh. 5 no.1:101-105 '62. (MIRA 15:4)

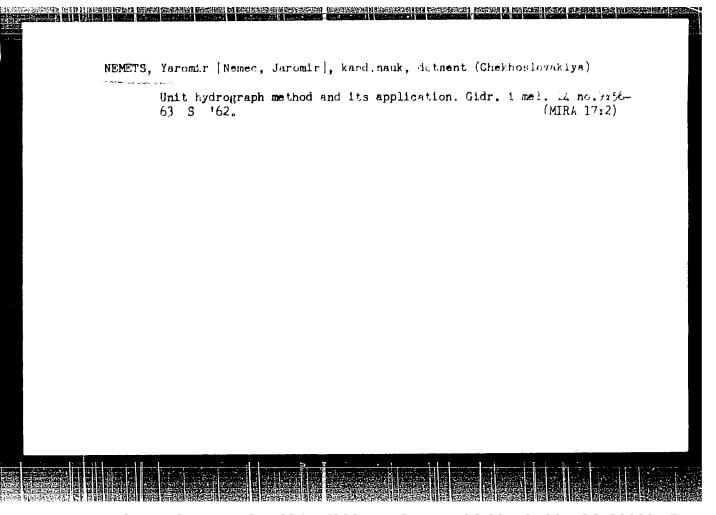
1. Leningradskiy tekhnologicheskiy institut ineni Lensoveta, kafedra osnovnogo organicheskogo sinteza.

(Amines) (Fluorine organic compounds)



APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001136520009-4"





SOV/122-58-12-1/32

AUTHOR: Nemets, Yaroslav, Doctor of Technical Sciences, Professor,

(Czechoslovakia)

TITLE: Contribution to the Problem of Selecting Permissible

Stresses in the Elements of High Pressure Pipelines for

Hydroelectric Power Stations (K voprosu vybora

dopuskayenykh napryazhaniy v elementakh truboprovotov

vysokogo davleniya dlya gidrostantsiy)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 12, pp 3-7 (USSR)

ABSTRACT: The design and stressing of a 3800 mm diameter Y-fitting, for a working water pressure of 15 - 18 atg and dynamic pressure peaks of 21 atg. are discussed. The fitting must not exceed 50 tons in weight. Starting from the elementary engineering calculations applicable to a small number of loading cycles, meterials of high ductility, components of small size without weight limitation and

the absence of defects leading to brittle failures, the main considerations applicable to large numbers of cycles and large components are intrinsed. The number of cycles is accounted for by makes of a Goodman diagram.

The surface quality is accounted for by a factor of 0.8. Card 1/3 A more refined stress analysis reveals the actual stress

SOV/122-53-12-1/32

Contribution to the Problem of Selecting Permissible Stresses in the Elements of High Pressure Pipelines for Hydroelectroc Power Stations

concentration factors. The effect of cracks at rightangles to the stress is related to the length of the
crack. The effective length is the maximum which cannot
be detected by non-destructive testing (amounting to 2%
of the diameter). A reserve factor of 3.5 is required.
Several practical examples are given. A material of
good weldability (no more than 0.18% carbon) and an
impact value of no less than 7 kgm/sm² is chosen. The
permissible working stresses in a manganese steel with
an ultimate tensile strength of 50-55 kg/mm² are
considered to be 2200 kg/sm² in the casing and 1500 kg/cm²
in the webs. Reduced scale models (1:4.75) were tested
with the help of strain gauges. Kramples of designs
with reinforcing fine are illustrated (Fig 5).

Card 2/3

SOV/122-58-12-1/32

Contribution to the Problem of Selecting Permissible Stresses in the Elements of High Pressure Pipelines for Hydroelectric Power Stations

The model tests showed that the material remained within the elastic limit up to a pressure of 40 atg. Some details of stress distribution are discussed.

There are 5 figures (1 photograph and 4 graphs)

Card 3/3

AUTHORS: Kuny, L. and Nemets, Z. SOV/136-58-6-17/21

TITLE: New Method of Making the Edge of the Aluminium-

production Electrolytic Bath from Heat-resisting Concrete (Novyy metod izgotovleniya brovki elektroliticheskoy vanny iz termobetona dlya proizvodstva

alyuminiya)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 6, p 96 (USSR)

ABSTRACT: At the authors' suggestion, a heat-resisting concrete

made of 17 kg Portland cement, 950 of blast-furnace slag, 480 of fireclay grains and 240-280 of waterglass per m³ was used for aluminium-electrolyser (figure) edges. Baths

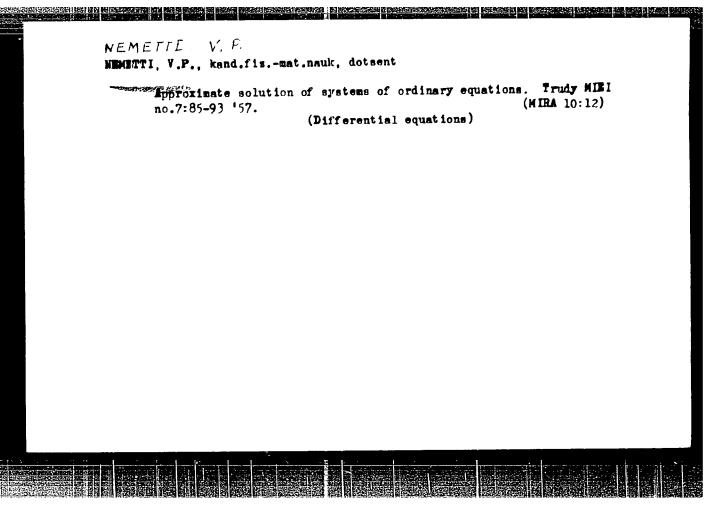
with this type of edge have been in operation at the Skavina Aluminium Works in Poland for over a year, and since February 1957 all baths are being repaired in

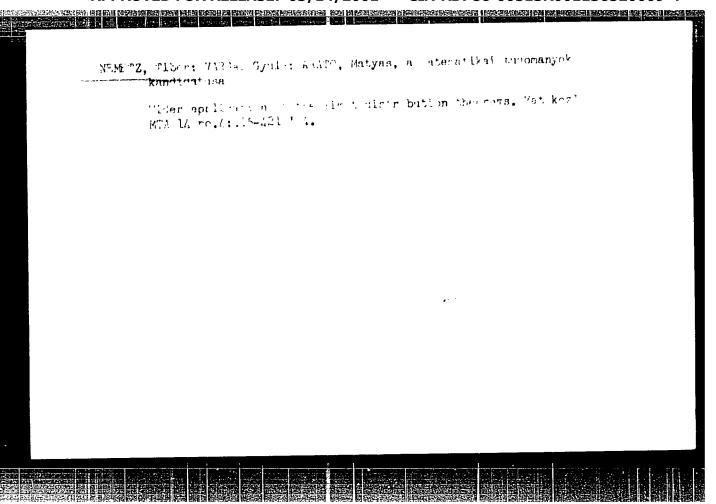
this way. There are I figure and I table.

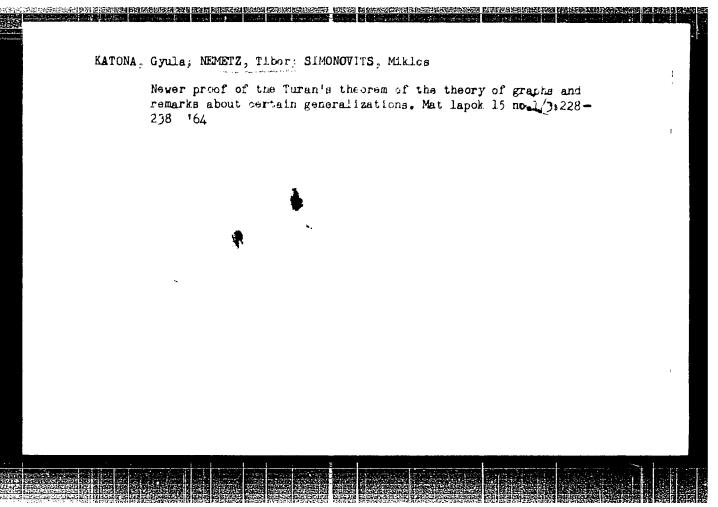
ASSOCIATION: Skavinskiy alguminiyevskiy zavod (Skavina Aluminium

Works) (Poland)

Card 1/1







Nemice / Miros LH /

A-5

Abs four : Ref Thur - Fizika, No 4, 1950, No 7512

Author : Nemicek Miroslav

Inst : Not Given

Title : Procedure of Teaching the Material in the Eighth Class on

Series and Parallel Connection of Conductors with the Use of

Laboratory Experiments

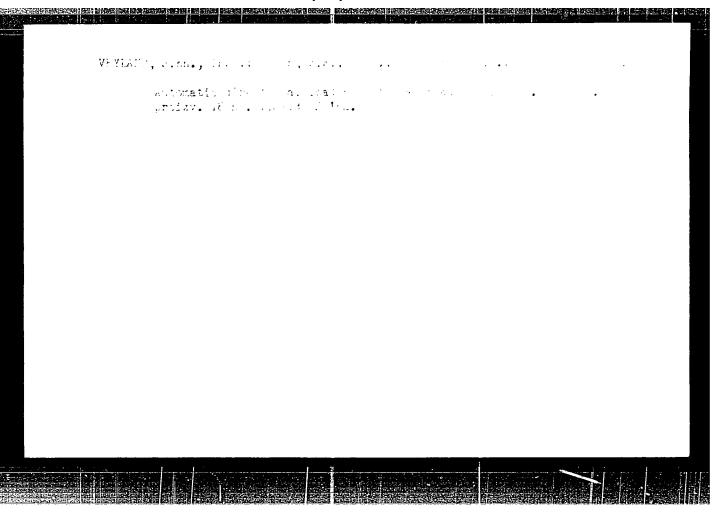
Orig Pub: Prirod. vedy skole, 1957, 7, No 7, 633-634

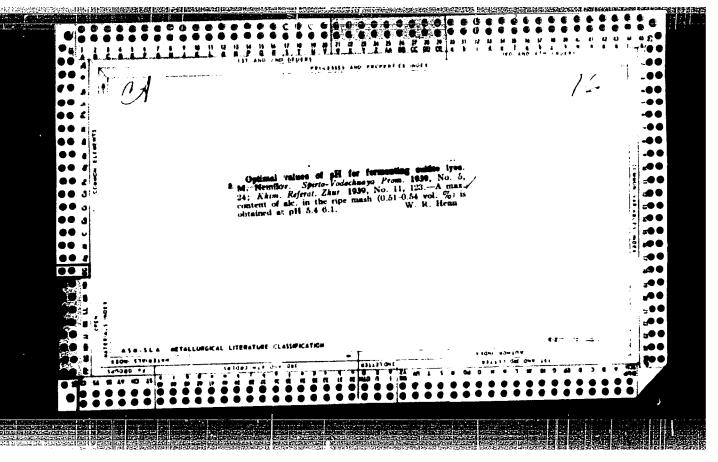
Abstract : No abstract

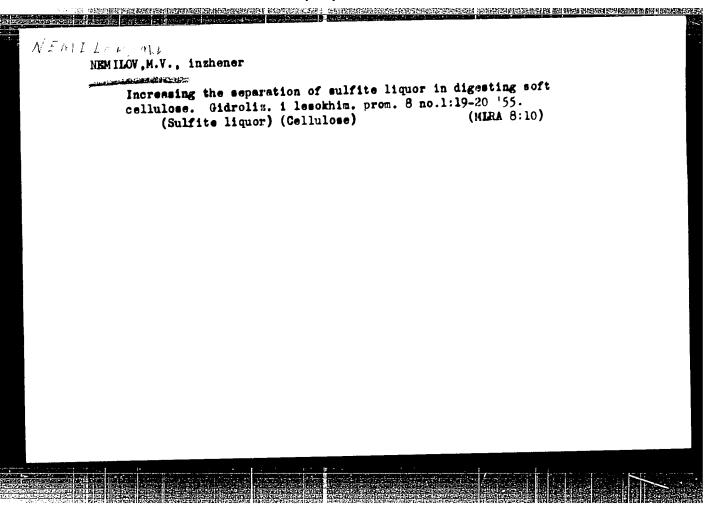
Card : 1/1

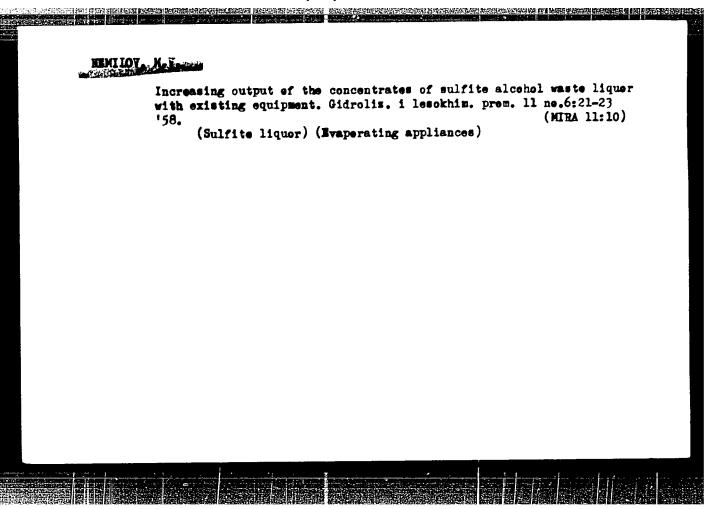
NEMILENTSEV, V.I.; POPOV, Ie.A.; SOKOLOV, V.Ye.

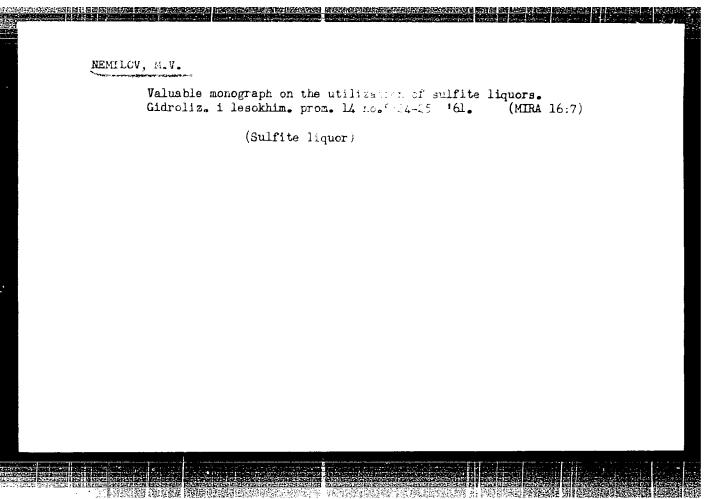
Transducer of an electromagnetic flowmeter withstanding a temperature up to 150°C. Trudy VKNII no.16:15-17 '62. (MIRA 16:5) (Flowmeters)





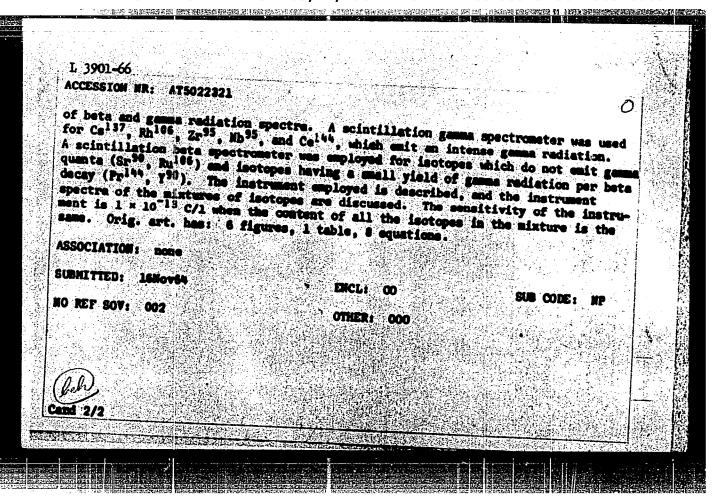


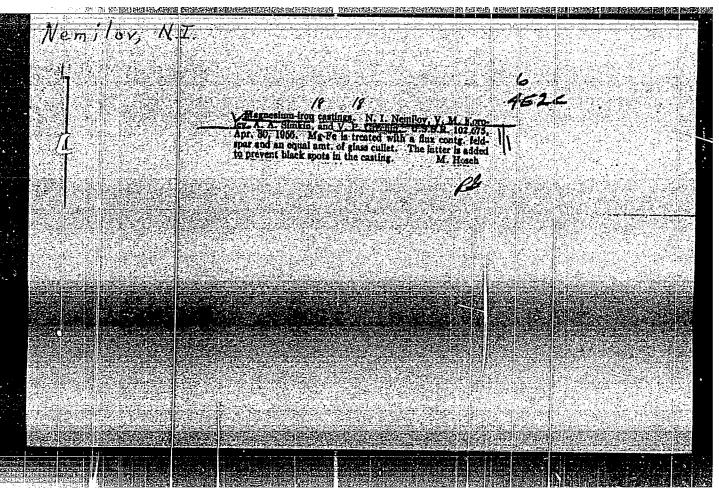




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L 3901-66 EWF(m) DIAAP ACCESSION NR: AT5022321 UR/3157/64/000/118/0041/0052 541.182.2/3:539.165 60 AUTHOR: Bolotin, V. F.; Kenllov, M. F. BHI TITLE: Identification and measurement of the activity of long-lived beta-active fragment isotopes included in the composition of the disperse phase of serosols SOURCE: USSR. Gosudaretvennyy komitet po ispol'sovaniyu atomnoy energii. Doklady, no. 118, 1964. Identifikatsiya i izmereniye aktivnosti dolgozhivushchikh oskolochnykh beta-aktivnykh izotopov, vkhodyashchikh v sostav dispersnoy fazy serozoley, TOPIC TACS: redicastry, redicisotope, cesium, rhodium, sirconium, niobium, cesium, stroatium, ruthenium, presecodymium, yttrium, gamma spectrum, beta spectrum ABSTRACT: The object of the study was to identify and measure the activity of nine long-lived beta-active gregnent isotopes present simultaneously in the air of certain rediochemical plants: cesius-137, strontius-96, yttrius-90, ruthe-nius-105, rhodius 105, cerius-144, presendymius-144, airconius-95, and niobius-95 (all the isotopes except cesius-137 were present in pairs at equilibrius). The redicastric analysis of samples of serosel particles on a filter involved the use Card 1/2





APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001136520009-4"

MEMILOV, S. V.

Investigation of the structure of semiconducting glasses of the systems

Se-As and Se-Ge. S. V. Nemilov (5 minutes).

Report presented at the 3rd National Conference on Semiconductor Compounds,

Kishinev, 16-21 Sept 1963

BR

ACCESSION NR: AT4019298

\$/0000/63/003/001/0112/0116

AUTHOR: Petrovskiy, G. T.; Nemilov, S. V.

TITLE: Investigation of the kinetics of catalyzed submicrocrystallization by the viscosimetric method

SOURCE: Simpozium po stekloobraznomu sostoyaniyu. Leningrad, 1962. Stekloobraznoye sostoyaniye, vy*p. 1: Katalizirovannaya kristallizatsiya stekla (Vitreous state, no. 1: Catalyzing crystallization of glass). Trudy* simpoziuma, v. 3, no. 1. Moscow, izd-vo AN SSSR, 1963, 112-116

TOPIC TAGS: submicrocrystallization, glass, catalyzed crystallization, glass viscosity, viscosimetry, titanium dioxide

ABSTRACT: The catalyzed submicrocrystallization of glass 13 samples containing titanium dioxide was investigated by the viscosimetric method, since the viscosity is closely correlated with the nature of the covalent skeletal structure of the glass. The variation in the viscosity of the initial glass mass and the crystallization products was studied and plotted at different temperatures. On the basis of the experimental data obtained at high temperatures in order to study the kinetics of the catalyzed crystallization process, it was established that this process consists of two stages: the industion period and the crystallization process

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ACCESSION NR: AT4019298

itself. The energy characteristics show that the processes taking place during the induction period, as well as those during the actual crystallization, are limited by the rearrangement of the covalentbonds in the glass skeleton rather than by the processes of ionic diffusion. A mechanism of catalyzed crystallization is given in which covalent transformation diffusion plays an important role. Orig. art. has: 4 figures and 2 formulas.

ASSOCIATION: none

SUBMITTED: 17May63

DATE ACQ: 21Nov63

ENCL: 00

SUB CODE: MT

NO REF SOV: 005

OTHER: 001

Card 2/2

PETROVSKIY, G.T.; NEMILOV, S.V.

Investigating the kinetics of catalyzed submicrocrystallization by viscosimetry. Stekloobr. sost. no.1:112-116 *63.

(MIRA 17:10)

\$/080/63/036/001/024/026 D204/D307

AUTHORS:

Nemilov. S.V. and Petrovskiv, G.T.

TITLE:

A new method for measuring the viscosity

of glasses

PERIODICAL:

Zhurnal prikladnoy khimii, v. 36, no. 1,

1963, 222 - 225

TEXT: The present work, first in the series of studies concerned with measurement of viscosity (η) in glassforming systems not containing oxygen, describes some measurements carried out in a viscometer designed by Slavyanskiy. The action of this viscometer depends on the measurement of the rate at which a cylindrical rod may be pressed into the specimen, under known load and at a known temperature. Construction of this instrument is illustrated and described in some detail, and calibration plots are given, obtained with the aid of chemically pure B₂O₃. It is demonstrated that log η = A + B log τ (where τ is the time during which the indentor sinks by 100 μ), and values

Card 1/2

A new method for ...

5/080/h3/036/001/024/026

A new method for ...

of A and E are listed for various loads and indentor diameters. Viscosity of plass-forming selection measured by the above method over C - 100°C was in excellent agreement with literature data. The method is rapid and suitable for \(\eta = 10^{11} - 10^{13} \) poise. The authors express their grabitude to V.T. Slavyanskiy and Ye. N. Frestnikova whose work allowed this study to be carried out. There are 3 figures and 1 table.

SUBMITTED:

January 24, 1962

NTTC/150/550-3 R-4 er(s)/er(s)/es \$/0060/63/036/005/0977/0981 1 3 3 3 3 3 3 3 AP 3002697 ACCESSION VR. 6 AUPPOR: Meetlov, S. V.; Petrovskiy, G. T. Investigation of the viscosity of golestun-avenue flasses SUBCE: Zhornel prikischoy khimii, v. 36, no. 5, 1963, 977-961 THE IC TAGE: Oxygentree glasses, chalcogenide glasses, selenium-arsenic system, as sub 2 Se sub 3, asse, synthesis of glasses, viscosity, semiconductors, infrared transparency, viscosity measurements, iso-viscosity curves INCREACT: The present study is the second of a series (S. V. Nemilov, T. Petrovskiy, and V. r. Slavyanskiy, 2hPKh, MXVI, 1, 222, 1963) investigating iscosity in oxygenfree chalcogenide glasslike systems. The research was polertaken in view of the increasing interest in the semiconductor properties and infrared transparency of such systems. Twenty-five Se-As glass samples of varying composition were synthesized. Mixtures of purified Se and As in evacuated Card 1/32

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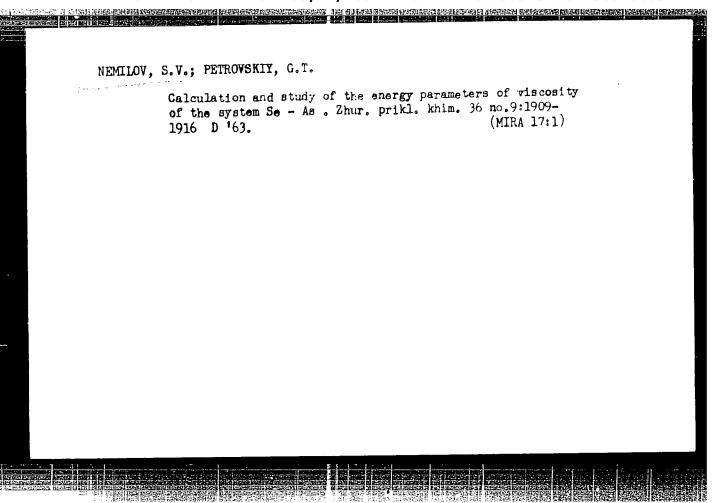
querts seponles were bested for 5 hr at 500 and 1 hr at 7000 with agitation in a tubular yearing furnace. The molt was then allowed to cool in the furnace. Stepholas were sitted polished after heating to boot in a miffle furnace or fire-polished without heating. The results of viscosity measurements commicted by a method essectived in the first paper are presented in a table. Loc-viscosity curves, plotted within the 4-13 log Ste range, are shown in Pig. 1 of the curves, plotted within the 4-13 log Ste range, are shown in Pig. 1 of the associated either with the formation of quinquevalent As or with blocking of associated either with the formation of quinquevalent As or with blocking of corresponding to As sub 2 Se sub 3 and Asse results from the formation of binary compounds, as indicated by previous data on electrical conductivity, density, with increasing temperature as a result of the breaking up or structurel nodes which are stable at loc temperatures only. The fall of the iso-viscosity curves them As content exceeds 50% is governed by the transformation of seakened covalent bonds. Orig. art has: 2 figures and 1 table.

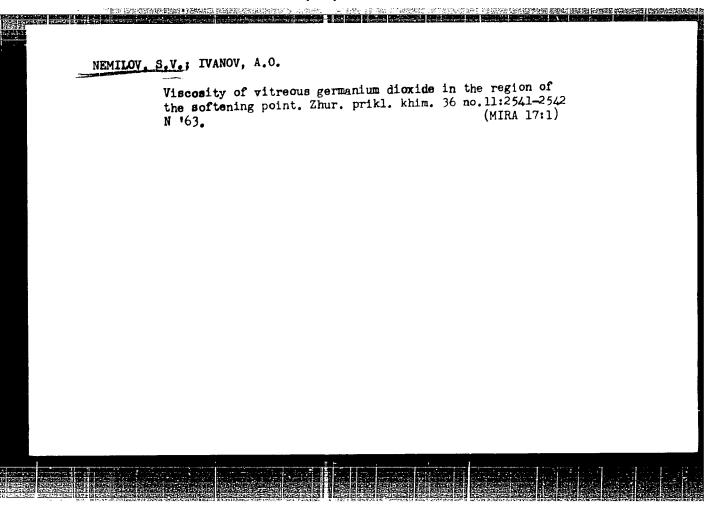
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DATE ACQ: 24Jul63 NO REP SOV: 006

ENCL:01 OTHER:006 0

Card 2/32

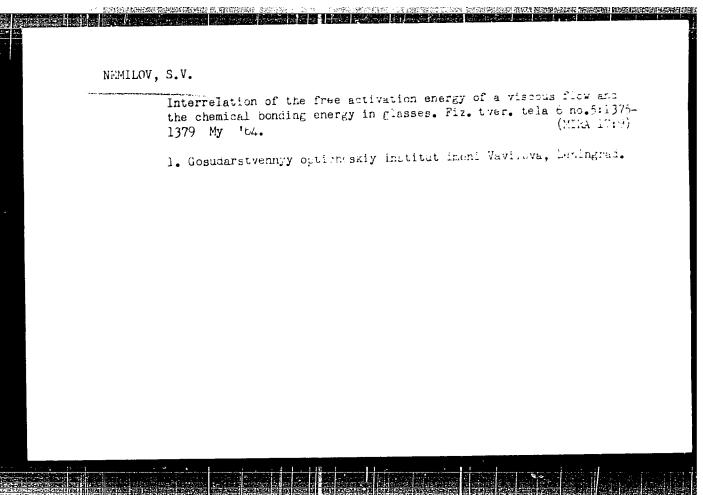




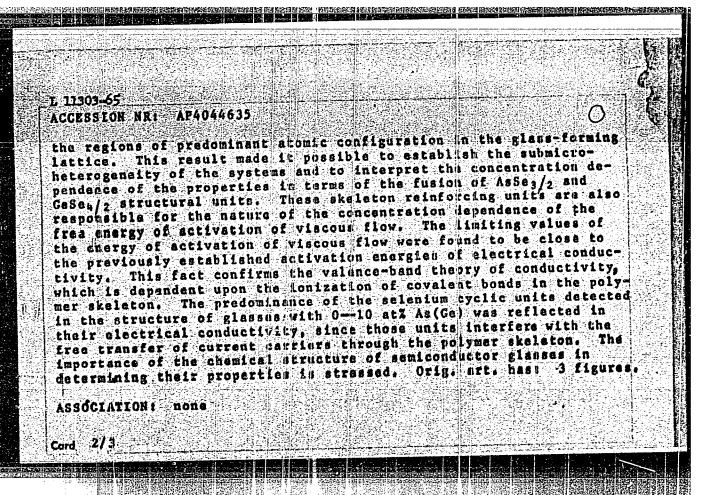
NEMILOV, S. V.

"Viscosity and structure of glass."

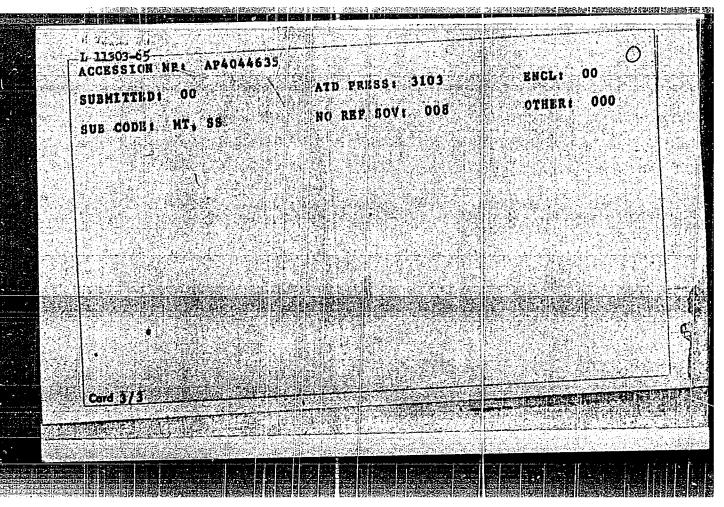
report submitted for 4th All-Union Conf on Structure of Glass, Leningrad, 16-21 Mar 64.



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	NRI AP4044635			4/028/008/128	1/1284
AUTHOR: N	emilov, S. V.		\d		(B)
TITLE: St	ructure of semic	onductor gl	isses of the	selenium- <u>ars</u>	inic 27
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conductor	The correlation properties of the terms has been ab		mannication	to the Third	anium All-
Union Con 16-21 Sep structure	ference on Semico tember 1963). The sensitive parame scour flow was nge. A stepwise	in Concentra ters-free	tion depend energy and	ence of the mo entropy of act	st ivation =40-at2
Card 1/3				/n	



"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001136520009-4



ACCESSION NR: AP4018066

S/0080/64/037/002/0293/0300

AUTHOR: Nemilov, S. V.

TITLE: Correlation between the entropy of activation of viscous flow,

the heat capacity, and the valence structure of glass

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 2, 1964, 293-300

TOPIC TAGS: heat capacity, valence structure, viscous flow activation entropy, SiO sub 2, GeO sub 2, B sub 2 O sub 3, Na sub 2 O.2SiO sub 2, K sub 2 O.2SiO sub 2, selenium, polyisobutylene, propyl alcohol, glucose, Na sub 2 O.3.3SiO sub 2, bridged bond, glass structure

ABSTRACT: The entropy of activation of viscous flow, the heat capacity, and the number of bridged bonds per structural unit and the number of degrees of freedom of torsional, valence, and deformed and ionic oscillations realized in the change in heat capacity in SiO2, GeO₂, B₂O₃, Na₂O.2SiO₂, K₂O.2SiO₂, selenium, polyisobutylene 3600, propyl alcohol and glucose were compared. It was concluded that glasses having a tetrahedrally linked unit structure are the longest,

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ACCESSION NR: AP4018066

and they soften with a larger temperature interval and with small entropies of activation, e.g. 10-40 cal./mol. degree (SiO₂, GeO₂). Glasses in which the number of bridged bonds in the basic unit structure is 3 have larger entropies of activation, from 70-140 cal./mol. degree (B₂O₃, Na₂O.2SiO₂, K₂O.2SiO₂, Na₂O.3.3SiO₂). In the shortest glasses formed by interlocking of the chain motifs, the values are about 300-500 cal./mol. degree (selenium, polyisobutylene, glycerin and glucose). Within the same valence structure the spread of values of the entropy of activation is explained by the individual characteristics of each glass strength of the valence bond, the polarizing effect of the cation, and the basic properties of the glassforming skeleton in the chain. There is general agreement between calculated and experimental values for the entropy of activation. Orig. art. has: 4 figures, 2 tables and 3 equations.

ASSOCIATION: none

SUBMITTED: 17Dec62

DATE ACQ: 19Mar64

ENCL: 00

SUB CODE: PH

NO REF SOV: 014

OTHER: 024

Card 2/2

ACCESSION NR: AP4038562

3/0080/64/037/005/1020/1024

AUTHOR: Nemilov, S. V.

TITIE: Viscosity and structure of selenium-germanium glasses. Communication IV.

SOURCE: Zhurnal prikladnoy khimi1, v. 37, no. 5, 1964, 1020-1024

TOPIC TAGS: selenium, germanium, arsenic, glass, viscosity measurement, phase equilibria

ABSTRACT: The viscosity of glasses was measured by the previously described method [Zhurnal Prikoldnoy Khimii (Journal of Applied Chemistry), Vol. XXXVI, No. 1, 1963]. The uncertainty of the temperature measurement was about 1C. The repetition of measurements on the same compositions indicated a precision of 3C upon comparison of the temperatures of glasses at the same viscosity and composition. The absence of crystalline microinclusions was verified by means of the infrared microscope MIK-1. This study of the viscosity and the analysis of the activation parameters of the viscous flow of Se-Ge glasses showed that these glasses are isostructural with those of the Se-As system. It was established that there exist three regions in which the valence state of the glass is determined by: (1) selen-

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ACCESSION NR: AP4038562

ium chains, (2) selenium chains in conjunction with germanium selenide tetrahedra, and (3) germanium selenide tetrahedra, which include excess selenium. The findings regarding the structure of these glasses are in good agreement with the findings of other authors who used different methods of investigation. The structure of Se-Ge and Se-As glasses has much in common with the structure of the crystallizing phases of these systems. Apparently, the spacial distribution of the structural units in glass is controlled by the same thermodynamic parameters as in crystallization. "The author expresses his deep gratitude to R. L. Myiller for a number of valuable suggestions which he made on reading the manuscript. 'Orig. art. has: 2 figures and 1 table.

ASSOCIATION: None

SURMITTED: 26Jan63

ENCL: 00

SUB CODE:

NO REF SOV: 012

OTHER: 002

ACCESSION RR: APHOLIPS S/0080/64/0 7/007/1452/1457

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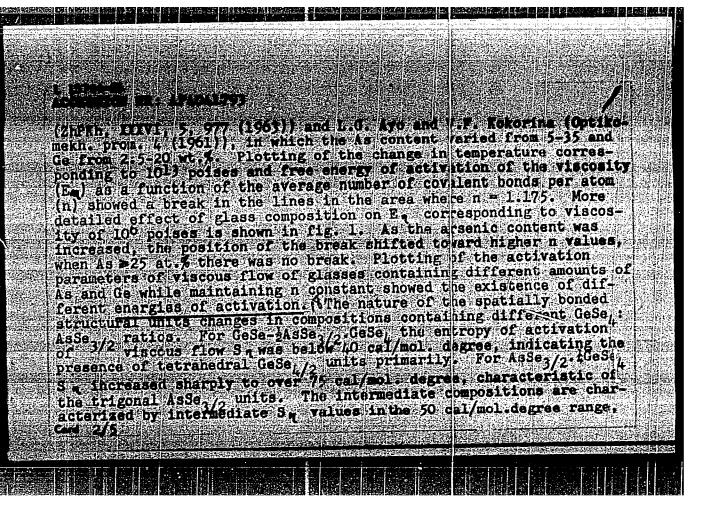
Tilk: Incoming the viscosity of graves of the success of works investigating the viscosity of oxygen-free glassforming systems

SOURCE: Zhurnel prikladnoy khimit, v. 37, nc. 7

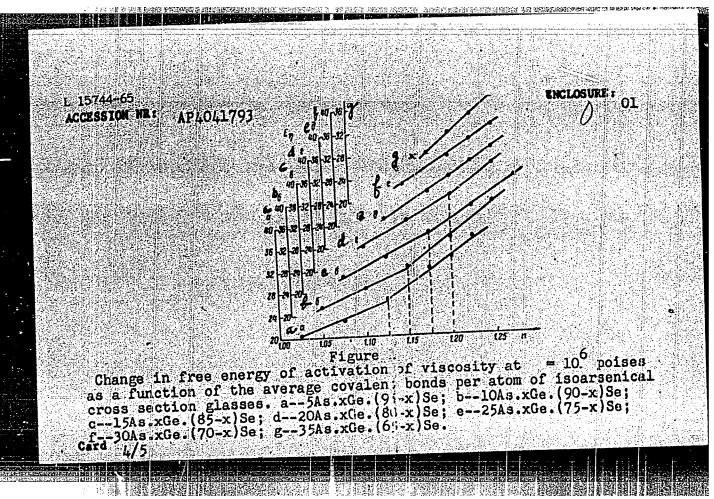
TOPIC TAGS: As de Se system, viscosity, glass scructure; coxygen free glassforming systems are size so that a series of size system, are size grainium selenium glass, activation parameter, envyen free glassforming system, are size grainium selenium glass, activation, chain bonded selenium atoms, Se Se bond, ASSe sub 3/2 trigons i group, GeSe sub 4/2 tetrahedral group, covalent bond.

ABSTRACT: By sessuring the visionities of glasses of the As-Ge-Se system and analysing the activation parameters, the limits of the regions of the compositions in which the glass structures are determined by the various structure lunits—chain bonded selenium atoms, AsSe 3/2-type trigonal linked groups or GeSe₁/2-type tetrahedral groups.

The viscosities were measured as before of the glasses studied by S.V. Nemilov and G.T. Petrovskiy Cord 1/5

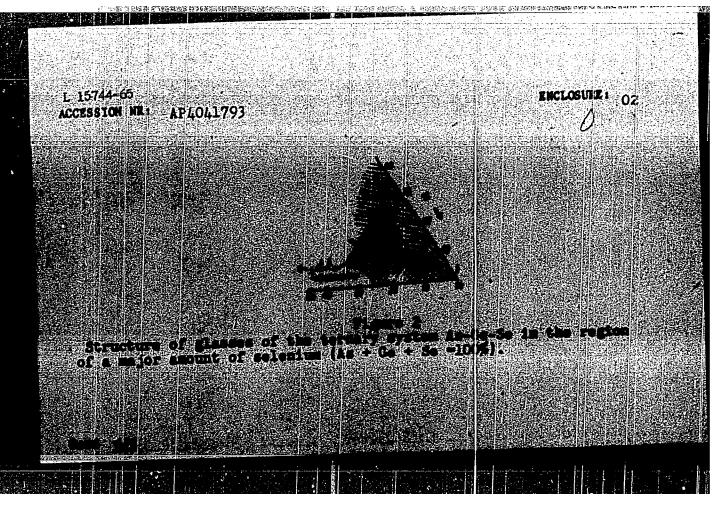


indicating mixtures of	tatrobodycl and trigonal W	nits. The work is
summarized in fig. 2 W	here triangles represent the igonal structural units, the z represents the Se-Se chal	e squares represent
ASSOCIATION: None		
SUBMITTED: 26Jan63		ENCL: 02
SUB CODE: MT	NR REF SOV: 009	CTHER: 000



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"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001136520009-4



ACCESSION NR: AP4043763

\$/0080/64/037/008/1699/1708

AUTHOR: Nemilov, S.V.

TITLE: Viscosity and structure of glasses of the system As-Ge-Se in the region of a low selenium content

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 8, 1964, 1699-1708

TOPIC TAGS: glass viscosity, selenium, glass synthesis, arsenic, germanium, isotherm, muffle furnace, vitreous system

ABSTRACT: This is the fourth in a series of papers on the investigation of viscosity of oxygen free vitreous systems. The synthesis of glass (30 gr. batches) was conducted at a maximum boiling temperature of 900°C, in accordance with a previously described method (Ayo, L.G., Kokorina, V.F., Optikomekh.i prom., 4,39 (1963) and Nemilov, S.V., Petrovskiy, G.T., Zh.P.Kh. XXXVI,5,977 (1963). Germanium with a specific resistance of 40 Ω cm, arsenic distilled in vacuum double distilled selenium were used for the synthesis. Glasses which approached a vitreous state were subjected to air hardening beginning at 700°C. All remaining glasses were hardened at temperatures from 650°C, aged in a muffle furnace at 600°C for a period of 10-20 minutes and tempered at a close to Tg temperature. The upper part of the sample was

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ACCESSION NR: AP4043763

then polished off. Control over possible crystallic inclusions was carried out with the use of a MIK-l infrared microscope. Viscosity was measured within the region of 10^{13} - 10^{4} poise. Measurement results of 41 compounds is given in a table. The author concluded that the region of "tetrahedral" structural units might be explained, and its extent calculated, assuming that excess arsenic entered the structure by way of solution in GeSe₂ and AsSe. At the samt time germanium-selenium structural units form the basic vitreous body. In a germanium rich region near the section of GeSe-As the glass structure is essentially inhomogeneous and might be considered as consisting of GeSe crystallites measuring not less than 25 Å. The author expresses his deep gratitude to R.L. Müller and K.S. Yevstrop'yev for their support and attenpossible for us to conduct the necessary synthesis. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 26Jun63

ENCL: GG

SUB CODE:

OC, MT

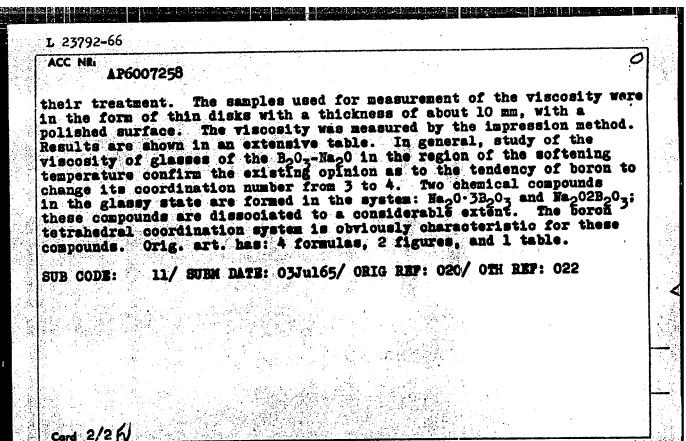
NO REF SOV: 018

OTHER: 007

Cara

2/2

L 23792-66 EWP(e)/EWT(m) HH ACC NR AP6007258 SOURCE CODE: UR/0363/66/002/002/0349/0356 AUTHOR: Nemilov, S.V. 32 ORG: none TITLE: Study of the structure of glasses in the B203-Na20 system by the viscometry method. SOURCE: AN SSSR. Izvestiya. Meorganicheskiye materialy, v. 2, no. 2, 1966, 349-356 TOPIC TAGS: glass property, barium compound, sodium compound, viscosi-ABSTRACT: Glasses of the B.O.-Na.O system were founded in the amount of 1 kg in quartz crucibles from chemically pure Na₂CO₂ and H₂BO₄ reagents. The crucibles were held in a flame furnace for 1 hour at a temperature of 800°C. The temperature was then raised to 1100°C and held there for 3 hours. After cooling of the furnace to 800°C the glasses were poured to 100°C and lower. in the form of slabs which were annealed at about 400°C and lower, depending on the composition of the glass. The glass was analyzed chemically. The synthetic composition and the analytical results did not differ by more than 0.5%. Glasses subject to hydrolysis (less than 20 mole % Na20) were stored in a desiccator and water was not used in Card 1/2 UDC: 546.27-31 + 546.33-31



L 06286-67 EWT(m)/EWP(s) WW/CED/WH ACC NR AT6027142 SOURCE CODE: UR/0000/65/000/000/0133/0138 AUTHOR: Nemilov, S. V.; Petrovskiy, G. T. ORG: none

TITIE: Study of the pyroceramization kinetics of glasses of the Li20-Ga203-SiO2 system containing titanium dioxide admixtures

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Issledovaniya v oblasti khimii silikatov i okislov (Studies in the field of chemistry of silicates and oxides). Moscow, Izd-vo Nauka, 1965, 133-138

TOPIC TAGS: silicate glass, pyroceramic, titanium oxide, catalyzed crystallization, gallium compound, lithium oxide

ABSTRACT: An attempt was made to determine the effect of composition on the nature of the kinetic processes involved in the catalyzed pyroceramization of glasses of the Li20-Ga203-Si02 system. The main composition, from which others were prepared, was Li20-Ga203-6Si02-0.4Ti02. The viscosity of the crystallization products was found to be substantially affected by any changes in composition. Changes in the nature of crystallization caused by changes in composition were studied kinetically during the preparation of the glass for crystallization and during the crystallization process itself. The analysis suggests that the pyroceramization consists in the following. Apparently, nucleation centers already exist in the glass during cooling, as indicated

Card 1/2

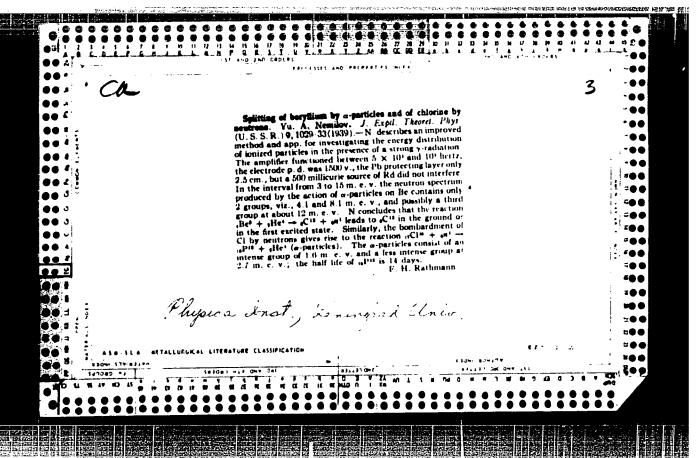
L 06286-67

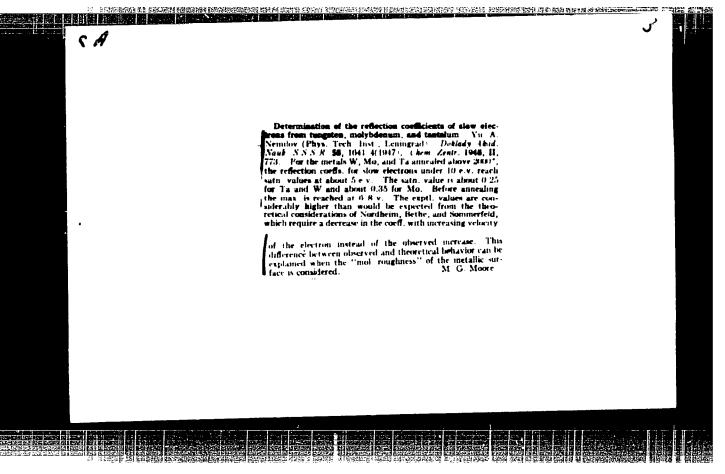
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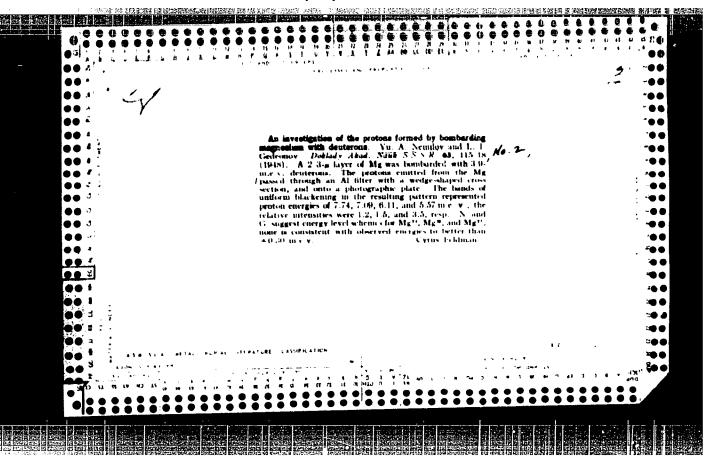
by viscous flow data and x-ray analysis. During heat treatment, the growth of these nucleation centers does not occur immediately, but is held up (induction period). During the induction period, the regions of inhomogeneity around the crystallization centers increase in size. The moving force of this process largely determines the tendency of the titanium atoms to change their coordination number. At some moment, the change in the composition of the regions of inhomogeneity and their size causes the start of precipitation of the crystalline phase, which takes place in a small volume of space (pyroceramization) if (because of concentration and activation relationships) the bulk of the vitreous mass carrying the regions of inhomogeneity is capable of only a limited supply of structural material to the growing crystals. Orig. art.

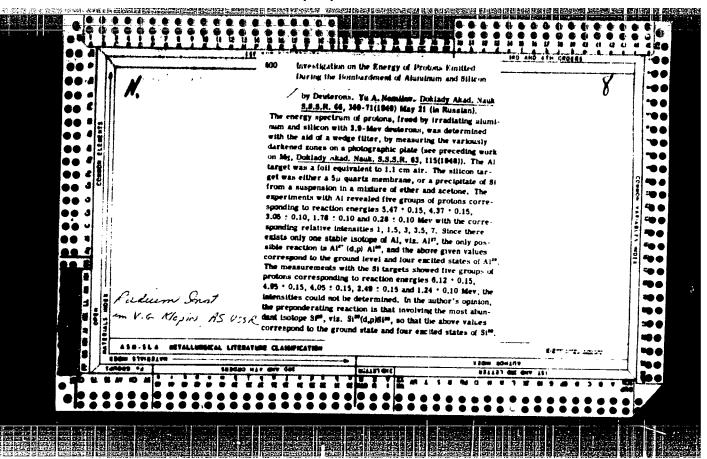
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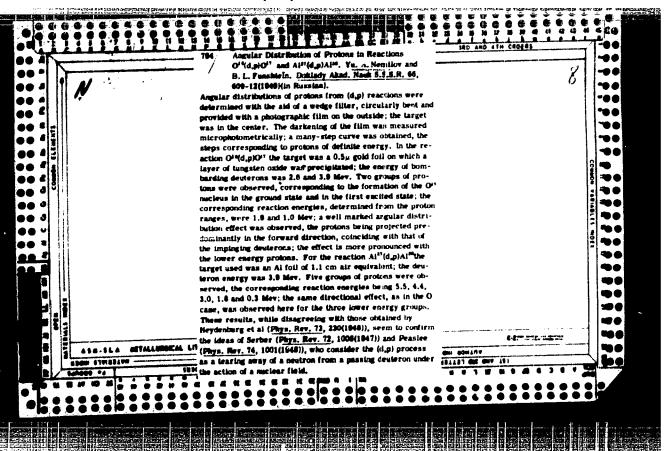
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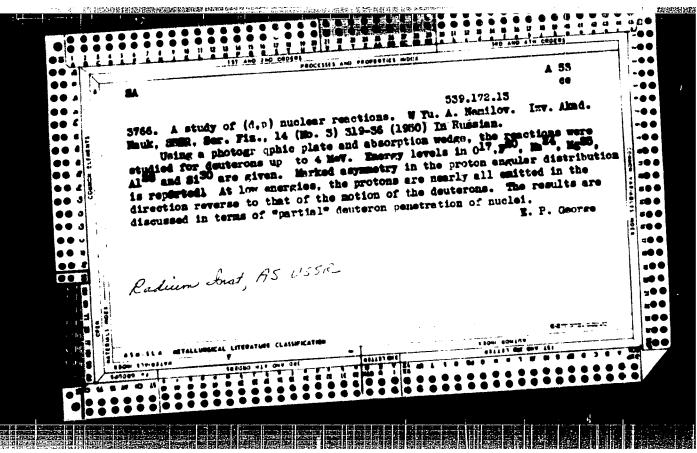


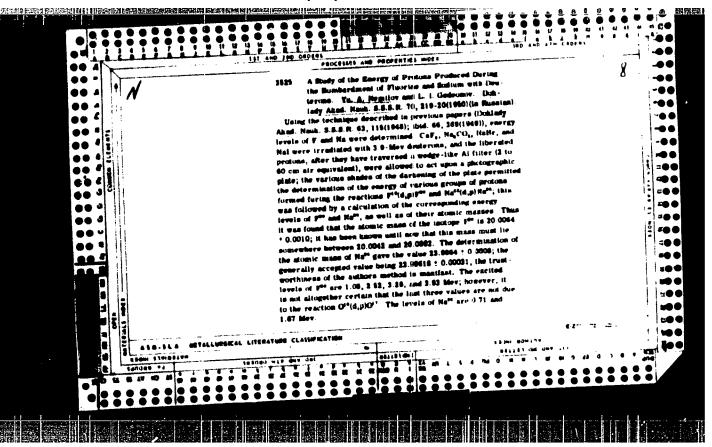












NEMILOV YU A.

IOFFE, A.F.; LEBEDEV, A.A.; FOK, V.A.; STARIK, I.Ye.; KORSTANTISOV, B.P.;
DZHELEFOV, B.S.; PERFILOV, H.A.; DOBRETSOV, L.M.; STARODUBTSEV, A.V;
BENILOV, Yu.A.; ZHDANOV, A.P.; MURIN, A.B.; AGLINTSEV, K.I.; TSARDVA. T.V.; SHUE'NAM, A.R.; TERRETEV, M.A.

P.I.Lukirekii; obituary. Vest.AN SSSR 24 no.12:62 D '54.(MLRA 8:1)

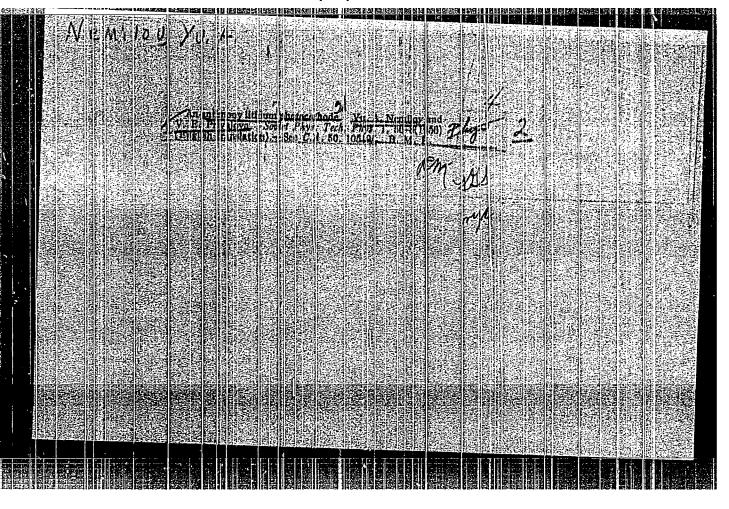
(Lukirekii, Petr Ivanovich, 1894-1954)

NEMILCV, Y. A., ZEEREBTSOVA, K. I. and FUNSTEYN, B. L.

"Relationship between Probabilities of Stripping and Compound Musleus Formation" a paper presented at the International Conference on Muslear Reactions, Amsterdam, 2-7 July 1956.

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N.Emilov, Yu. A

USSR/Nuclear Physics

C-2

Abs Jour

: Referat Zhur - Fizika, No 5, 1957, 11024

Author

: Nemilov, Yu.A., Ovchinnikov, V.M., Pisarevskiy, A.N.,

Teterin, Ye.D.

Inst

: No t given

Title

: Use of the FEU-12 in Scintillation Spectroscopy.

Orig Pub

: Atom. energiya, 1956, No 4, 51-56

Abstract

: Report of the results of a test of a new photomultiplier, FEU-12, which has a system of 12 dynodes of the shutter (venetian blind) type and has considerably better parameters than the FEU-19. The FEU-12 has a Sb-Cs or Bi-Ag-Cs cathode 15 nm in diameter. The bismuth-silver-cesium cathode is sensitive over a widere range of the spectrum, extending to 7500 A. Of the 12 tested specimens, 20 had

an integral cathode sensitivity (=) above 45

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USSR/Nuclear Physics

C-2

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11024

microamperes per lumen (the light source of type A with a color temperature of 2848°); ind. vidual specimens have 80 microamperes per lumen. The coefficient of amplification at a normal working voltage on the order of 1600 volts amounts to 105 -- 4 x 106. The static light characteristic of the FEU-12 is linear to output currents above 50 ma, and prolonged operation at this current is possible. The linearity of the amplitude curve, upon exposure to gamma rays, extends to 4.5 Mev (in combination with a NaI(T1) crystal). The value of the signal picked off reaches 40 -- 50 volts. The FEU-12 does not require a special choice of power supply: for all tested specimens, the best resolution was obtained when the voltages evenly divided between all the electrodes, including the gap between the cathode -- and the first dynode, where the voltage difference should be 2 -- 3 times greater. For all photoelectron multipliers with

Card 2/3

USSR/Nuclear Physics

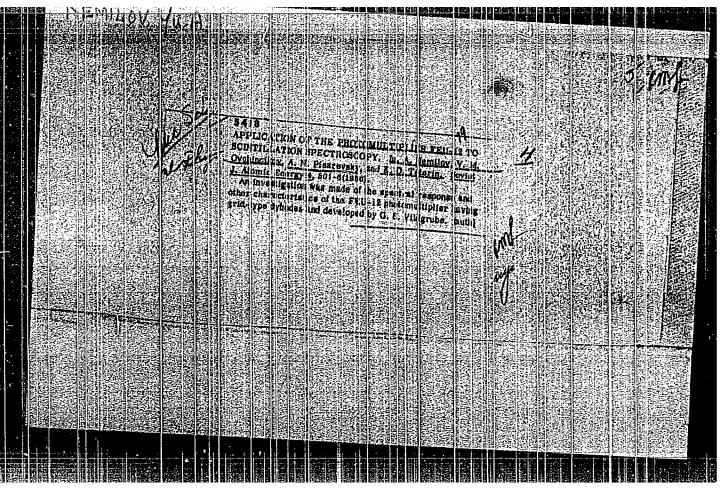
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Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11024

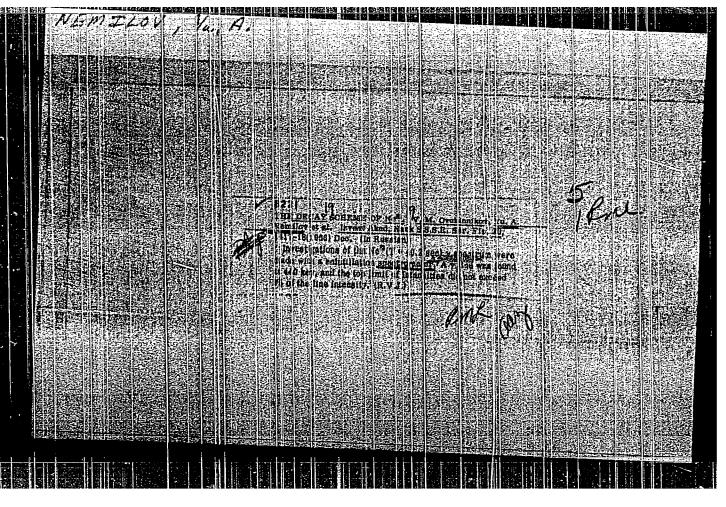
45 microamperes per lumen, the width of the photo line Cs^137 does not exceed 13%. The pulse build-up time determined by the FEU was 1.5 -- 2 x 10^{-3} seconds. The FEU-12 has a low noise level (less than 15 kev in the scale of the NaI (T1) crystal) and good stability (the shifts of the Cs^137 photo line from the initial position does not exceed 1 -- 1.5% within 12 hours).

Card 3/3

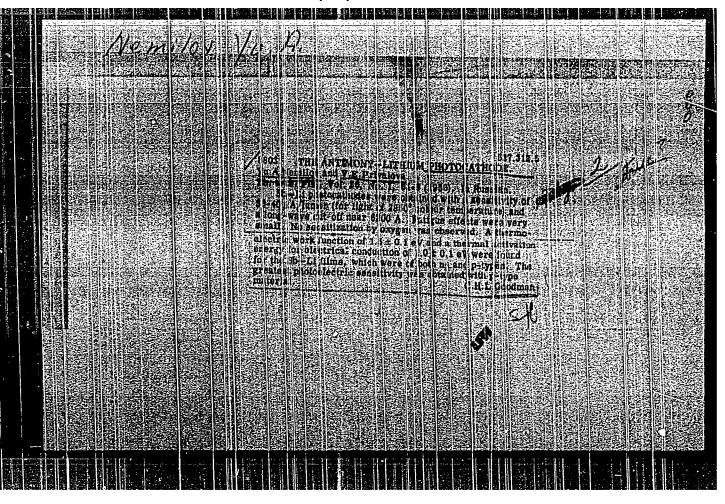
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SUBJECT

JSSR / PHYSICS

CARD 1 / 2

PA - 1288

AUTHOR TITLE

NEMILOV, JU.A., LITVIN, V F.

The Analies of the Magn

The Application of the Magnetic Analysis of the Products of Reac-

tions of the Type (d,p) to the Study of the quantum Characteristics of the Levels of the Nuclei Produced in the Course of

these Reactions.

PERIODICAL

Murn.eksp.i teor.fis, 30, fasc.4, 686-689 (1956)

Publ. 4 / 1956 reviewed 9 / 1956

By comparing the relative intensities of the protons emitted under a certain angle on the occasion of the use of primary particles with different energies, 28 the symmetry properties and the possible spins of the levels of the nucleus Al which is formed on the occasion of the reaction Al²(d,p)Al²⁸ are investigated. Experimental conditions were similar to those of L.M.CHROMCENKO, Dokl.Akad.Nauk, 94, 1037 (1954). The energies and the intensities of the protons were determined by counting the traces under the microscope. The protons were observed under the angle 109+3° in the laboratory system at deuteron energies of from 1 to 5,6 MeV. The proton distribution obtained at a deuteron energy of 1,71 MeV is shown in a diagram. Altogether, 31 groups of protons were found; several previously found levels were not dissolved here, but a new level was found to exist at the excitation energy 8,24 MeV of the Al²⁹ nucleus

The ratios of the intensities of the states of the Al²⁰ nucleus with the excita-

The ratios of the intensities of the states of the Al 28 nucleus with the excitation energies 0,974; 1,015; 1,367; 1,625; 5,128 and 5,435 MeV (corresponding to the groups P $_1,P_2,P_3,P_4$ and P_5) to the intensity of the transition to the ground

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CIA-RDP86-00513R001136520009-4"

Žurn eksp.i tecr.fis,30, fasc.4, 686-689 (1956) CARD 2 / 2 PA - 1288 state at deuteron energies 1,12;1,71;2,43;3,15;3,81;4,54;5,17;5,59 keV were letermined. Because of the rather low resolving capacity of the device used In this case the remaining proton groups could either not be separated at all or only insufficiently. The intensity conditions observed here are probably determined entirely by stripping reaction and not by the creation of a compound nucleus. For the strict interpretation of the results obtained it is necessary to know the dependence of the intensities of proton groups observed under a certain angle on the energy of deuterons; the respective computations have hitherto not yet been strictly carried out. At present it is possible only to estimate the quantumlike properties of some levels in which the increase of deuteron energy may be ascertained with the highest degree of distinctness. The position of the maxima of intensity conditions in the case of various values of the angular momentum 1 can be approximatively determined by graphic extrapolation. In conclusions the transitions to the levels of the Al' nucleus with excitation energies of 1,625; 1,37; 5,128 and 5,435 MeV are discussed in detail

INSTITUTION: Radium Institute of the Academy of Schence in the USSR.

MEMILOV, YU.A.

Subject

USSR / PHYSICS

CARD 1 / 2

PA - 1406

AUTHOR TITLE NEMILOV, JU.A., ZEREBCOVA, K.I., FUNSTEJN, B.L.

On the Relationship between the Processes of Stripping and the

Production of a Compound Nucleus on the Occasion of Reaction with

Deuterons.

PERIODICAL

Žurn.eksp.i teor.fis, 30, fasc.6, 1013-1016 (1956)

Issued: 8 / 1956 reviewed: 10 / 1956

The relationship of these reactions on the nucleus ${\rm Mg}^{26}({\rm d},{\rm p}){\rm Mg}^{27}$ is here estimated by comparison of the yields of those nuclei which are produced on the occasion of d,p-processes and d,q-processes on an ${\rm Mg}^{20}$ nucleus as well as on the occasion of n,p-processes and n,q-processes on an ${\rm Mg}^{20}$ nucleus. For the purpose of a more accurate quantitative estimation of the relative probabilities of the two mechanisms mentioned in the title two reactions are selected (one of them with deuterons and the other with any other data as e.g. neutrons), in which one and the same compound nucleus is produced. The radioactive nuclei ${\rm B}_1$ and ${\rm B}_2$ created in connection with the reactions selected on this occasion had decay periods which, from the point of view of measuring technique, were favorable. The ratios of the quantities of radioactive nuclei ${\rm B}_1$ and ${\rm B}_2$ produced in the targets by irradiation with deuterons and neutrons were determined from the fading curves of radioactivity. It is true that: ${\rm g}'({\rm d},{\rm p})/{\rm g}({\rm d},{\rm a})=({\rm g}'({\rm d},{\rm p})_{\rm c.n.}+{\rm g}'({\rm d},{\rm p}){\rm strip}+{\rm F})/{\rm g}({\rm d},{\rm a})={\rm mad}_1$ and ${\rm g}({\rm g},{\rm mad}_2)={\rm mad}_2$. Here cn. refers to a compound nucleus, strip. to a stripping process, and F denotes the term due to the interference between the two terms. As the decay of the compound

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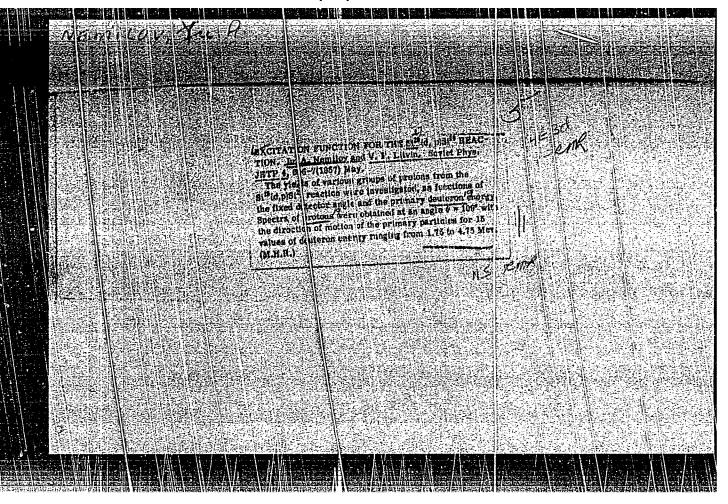


"Et Alii also studied Similiar Problems."

A conference on Electron and Photo-Electron Multiplier; Radiotekhnika i Elektronika, 1957, Vol. II, No. 12, pp. 1552-1557 (USSE)

Abst: A conference took place in Mosocw during February 20 and March 6, 1957 and was attended by scientists and engineers from Mosocw, Leningrad, Kiev and **max* other centres of the Soviet Union. Altogether 2" papers were read and discussed.

"APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001136520009-4



AUTHOR: NEMILOV, JU.A., PISAREVSKIJ, A.N.

TITLE: Investigation of J-Rays from Po-Li and Po-Mg Sources. (Issle-

dovanie f -lucej ot neutronnych istocnikov Po-Li i Po-Mg,

Russian).

PERIODICAL: Zhurnal Eksperimental'noi i Teoret. Fiziki, 1957, Vol 32, Nr 1,

pp 139-140 (U.S.S.R.)

Received: 3 / 1957 Reviewed: 4 / 1957

PA - 2070

ABSTRACT: In connection with bombarding lithium and magnesium with d-particles of polonium all reactions (αn) and (αp) are energetically

possible with the exception of the reactions (an) on Li and Mg 24. The f-rays are created in the sources considered here by the production of a nucleus (which is the product of the corresponding reactions in an excited condition) or by its further radicactive decay. The f-spectra are studied by means of a monocrystal or a pair-scintillation spectrometer with highly stable

multipliers FEU-12.

The γ -spectrum of the source Po-Mg obtained here is illustrated in form of a diagram. γ -lines of the following energies were observed: 0,23; 0,8; 1,25; 1,85; 2,3; 4,2 MeV. On the lines observed on the monocrystal spectrometer an unsuccessful attempt was made to determine the n- γ -coincidences. This was also impossible on the occasion of the measurements carried out with

Card 1/3

PA - 2070

Investigation of / -Rays from Po-Li and Po-Mg Sources. the pair-spectrometer because of the low efficiency of this spectrometer. The frays with 0,8 MeV are the most likely to correspond to the known line observed in the decay of the Po²¹⁰ line and the / -lines with 1,85; 1,25 and 2,3 MeV apparently result from one of the reactions (ap). The line 1,85 MeV apparently corresponds to the decay of Al28, but the 7 -lines 1,25 and 2,3 MeV are apparently the result of the decay of Al 29. Some indirect but rather clear indications of the existence of / -rays of the order of magnitude of 4 MeV are found in previous American works. In the present paper p -rays with the energy of 4 MeV were found by means of the pair-spectrometer. They can be reduced to one of the exothermal reactions of the type (an): either $Mg^{25}(an)Si^{28}$ with the energy Q = 2,7 MeV or $Mg^{26}(\alpha n)Si^{29}$ with Q = 0,04 MeV. Other reactions cannot lead to products of so highly excited states. An n-f -coincidence with the line 4,2 MeV could not be found immediately. A special examination with decelerated neutrons showed that those observed here cannot correspond to some adhesive reactions of the neutron to any material of the device.

Card 2/3

PA - 2070

Investigation of / -Rays from Po-Li and Po-Mg Sources.

The intensity of the weak line with the energy \sim 1 MeV increased considerably as soon as the measuring crystal CsJ(Tl) or NaJ(Tl) was surrounded by a scatterer of J. That is why the authors endeavor to attribute the given line to the non-elastic scattering of the neutrons by J or to the discharge of the excited condition of

Al²⁸ or Al²⁹. The f-rays with the energy of 0,23 MeV probably result from one of the reactions of the type (ap) mentioned here. Finally, the f-spectrum of the source Po-Li is discussed on the basis of a diagram.

ASSOCIATION: Not given

PRESENTED BY:

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AVAILABLE: Library of Congress

Card 3/3

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ZHEREBTSOVA, K. I., MAKAROVA, T. P., NEFILOV, Yu. A., and FUNSHTEYN, B. L.

"Sur la production relative des etata isomeriques et fondamentaux 69 Zn produits dans des reactions nucleaires differentes."

report presented at the Intl. Congress for Muclear Interactons (Low Energy) and Muclear Structure (Intl. Union Pure and Applied Physics) Paris, 7-12 July 1958.

AUTHORS:

Nemilov, Yu., Privalova, V.

SOV /57-58-8-18/37

TITLE:

Quantitative Analysis of the Alkali Metal Composition of Some Photocathodes (Kolichestvennyy analiz shchelochnykh metallov,

vkhodyashchikh v sostav nekotorykh fotokatodov)

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, 1958, Nr 8, pp. 1717 - 1718 (USSR)

ABSTRACT:

A quantitative analysis of the alkali metal content of three different photocathode types produced in the laboratory of the authors according to flame photometric methods was carried out in this investigation. The analysis showed that all alkali metals are contained in every photocathode, which alkali metal whatsoever was used in the production of it. This is probably due to an insufficient purity of the alkalimetal-containing reagents. Li, NaCl and KCl was analyzed. The three alkali metals were all found in each sample, whereas no analysis for Rb and Cs was carried outsin these reagents. The majority of the photocathodes contains less lithium as compared to the potassium and sodium content. This is due to the fact that in the thermal distillation of lithium in a high vacuum the major part of the lithium passes over into the glass. The authors are of opinion that the assertion

Card 1/2

Quantitative Analysis of the Alkali Metal Composition SOV/57-58-8-18/37 of Some Photocathodes

made in reference 3 concerning the complete absence of lithium in lithium photocathodes is wrong. An investigation of the relation between the ratio of the alkali metals contained in a lithium cathode and the properties of the photocathode will be the subject of the next paper. There are 1 table and 4 references, 3 of which are Soviet.

SUBMITTED:

January 6, 1958

Card 2/2

21(7), 21(8) AUTHORS:	Nemilov, Yu. A., Pisarevskiy, A. N., SOV/56-35-3-44/61 Soshin, L. D.
TITLE:	On the First Excited State of ${\tt Tb}^{159}$ (O pervom vozbuzhdennom sostoyanii ${\tt Tb}^{159}$)
PERIODICAL:	Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 3, pp 800 - 801 (USSR)
ABSTRACT:	In the course of the investigation of the γ -radiation of Dy 159 (the decay of which is caused solely by K-capture) by means of a scintillation spectrometer, a line with double energy in momentum distribution is observed besides the K-X-rays of Tb 159 (44,5 keV). This line is produced by the total summation of quanta with the energy of 44,5 keV. According to these results, the observed line with 90 keV is the result of the summation of two cascade-like emitted quanta with half the energy. In the case of the first of
Card 1/3	these quanta there is K-emission of ${\tt Tb}^{159}$ after K-capture, and the second quantum is produced by the discharge of the

On the First Excited State of Tb 159

SOV/56-35-3-44/61

first excited state of Tb 159. N. F. Heydenburg and G. M. Temmer (Ref 2) presumed that the energy of the first excited state of Tb 159 amounts to 57.5 keV. J. W. Mehelih et al. (Ref 3) observed conversion electrons which correspond to this excited state. Y -rays which correspond to the discharge of this state were not observed in any of the aforementioned works. If the line mentioned exists at all, it amounts, according to the results obtained by this paper, to not more than 1% of the 44,5 keV peak. Additional verification was carried out by means of a summating spectrometer with a CaJ(T1)-crystal. The momentum-distribution thus obtained is illustrated by means of a diagram. The first excited state of Tb 159 discharges because of the strong 57.5 keV conversion line also with emission of a K-X-ray radiation, in which case the conversion coefficient is > 99%. The authors thank A. N. Murin and B. K. Preobrazhenskiy for placing a good radiation source at their disposal. There are 2 figures and 4 references, 3 of which are Soviet.

Card 2/3

On the First Excited State of Tb 159

SOV/56-35-3-44/61

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of

the Academy of Sciences, USSR)

SUBMITTED:

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June 4, 1958

Card 3/3

CIA-RDP86-00513R001136520009-4" **APPROVED FOR RELEASE: 03/14/2001**

21(8) AUTHORS: . Nemilov, Yu. A., Pisarevskiy, A. N. SOV/56-35-3-45/61 Soshin, L. D. TITLE: The Investigation of γ -Rays in the Decay of As 78 (Issledovaniye y-luchey pri raspade As78) PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, N: 3, pp 801 - 802 (USSR) It is known that As^{78} , when it decays (T = 90 min), emits ABSTRACT: 2 groups of β -particles (E_{\beta} = 4,1 MeV, 70% and E_{\beta} = 1,4 MeV, 30%). In this decay also γ -rays of 0,27 MeV and 0,615 MeV were observed. On the strength of the datasvailable it is possible even to draw conclusions with respect to the decay scheme of this isotope. The authors produced As by bombarding the separated isotope Se with 14 MeV neutrons in accordance with the reaction (np). Measurements were carried out by means of a scintillation-y-spectrometer with a 128channel analyzer. When using a single spectrometer the following y-lines were observed: 500 keV with T=5-6 minutes; 270, 610, 800, 1280, 2680 keV with $T = 90 \pm 10$ min. (lines with high intensity); 80, 345, 690, 1200, 1620, 1880, 2020, Card 1/3 2160 keV (lines with low intensity); besides there are

The Investigation of γ -Rays in the Decay of As 78

SOV/56-35-3-45/61

indications for the presence of a line with very low intensity (~2400 keV). When a summating spectrometer was used the following summated lines (with the period 90 \pm 10 min.) were observed: 420, 2700, 1650 keV. The transitions with the period 90 min. can be assigned to the β -decay As⁷⁸→ Se⁷⁸. The γ -line 500 keV (T = 5 - 6 min.) is not formed by the annihilation of positrons at any eta *-decay. nor are any lines of different enery and T = 5 - 6 min.observed. Therefore, this line was probably caused by the discharge of any metastable state produced by the interaction of neutrons with Se^{78} . The isomeric lines of the other possible reactions on $Se^{78}(n2n,n2p,nq,npn)$ have already been sufficiently well investigated, and no isomer with the observed state (T = 5 - 6 min., E = 500 keV) is observed. Therefore, As 78 probably has a metastable state with the energy of 500 keV. A possible decay scheme for As 78 is given in form of a diagram. The authors thank A. N. Protopopov and his collaborators for irradiating the prepara-

Card 2/3

The Investigation of γ -Rays in the Decay of As SOV/56-35-3-45/61

tions with neutrons. There are 1 figure and 3 references,

2 of which are Soviet.

ASSOCIATION: Radiyevyy institut Akademii nauk SSSR (Radium Institute of

the Academy of Sciences, USSR)

SUBMITTED: June 4, 1958

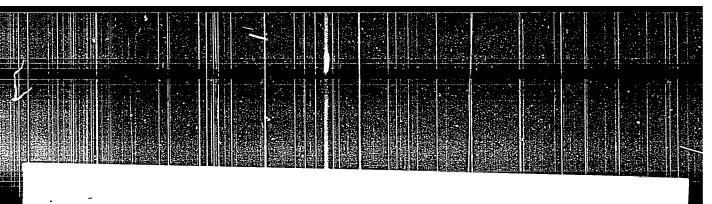
Card 3/3

21(7) SOV/56-35-6-5/44 AUTHORS: Zherebtsova, K. I., Makerova, T. P., Nemilov, Yu.A., Funshteyn, B.L. TITLE: On the Ratio Between the Yields of the Isomeric and the Ground State of ${\rm Zn}^{69}$, Produced in Various Nuclear Reactions (0 sootnoshenii mezhdu vykhodami izomernogo i osnovnogo sostoyaniy ${\rm Zn}^{69}$, obrazuyemogo v rezul'tate razlichnykh yadernykh reaktsiy) PERIODICAL: Zhurnal eksperimental noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 6, pp 1355-1357 (USSR) In the introduction, several papers dealing with this subject which have already been published (Refs 1-3) are dealt with, and ABSTRACT: the problem is discussed. The authors themselves investigated the following reactions: a) $2n^{68}(d,p)2n^{69}$; b) $Ga^{69}(n,p)2n^{69}$; c) $Ga^{71}(d,\infty)2n^{69}$. occurs as a β -active isotope with the half-life of 57 min., and it has an isomeric state which goes over into the ground state with a half-life of 13.8 h. The ratio 6/6 (=Zn⁶⁹-yield in the isomeric state/Zn⁶⁹-yield in the ground state) was determined by the authors from the analysis of Card 1/3 the decay curve (\beta-particles were counted by means of a G.M. counter).

On the Ratio Between the Yields of the Isomeric and the Ground State of $2n^{69}$, Produced in Various Nuclear Reactions

neutrons by $Z_n^{(6)}$ was hitherto measured as 0.29 (capture of thermal neutrons by $Z_n^{(6)}$, reference 1) and from the reaction $G_n^{(7)}(n,d)Z_n^{(6)}$ by using 14 MeV neutrons as being $G_n^{(7)}(n-1)$ (Ref 4). $G_n^{(7)}(n-1)Z_n^{(6)}$ by using 14 MeV neutrons as being $G_n^{(7)}(n-1)$ (Ref 4). $G_n^{(7)}(n-1)Z_n^{(6)}$ by using 14 MeV neutrons as being $G_n^{(7)}(n-1)$ (Ref 4). $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ by using 14 MeV neutrons as being $G_n^{(7)}(n-1)$ (Ref 4). $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ by using 14 MeV neutrons as being $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ and $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ (Ref 4) found practically the double value for the reaction $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ (with $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$) within the error limits for $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ (with $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$) within the reaction $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ with $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$ (with $G_n^{(7)}(n-1)Z_n^{(6)}(n-1)$) is finally discussed. There are 2 figures and 4 references, 1 of which is Soviet.

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SOV/120-59-1-40/50

AUTHORS: Zlobin, L. I., Nemilov, Yu. A., Pisarevskiy, A. H.

TITLE: The Behaviour of Some Types of Photomultipliers in a Weak
Magnetic Field (Povedeniye nekotorykh tipov fotoumozhiteley
v slabom magnitnom pole)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 1, pr 140-141 (USSR)

ABSTRACT: Scintillation counters are often used in the neighbourhood of strong magnets. In order to use photomultipliers successfully under such conditions special magnetic screens must be used and hence it is necessary to know the properties of photomultipliers working in the weak magnetic fields. In the work described in this paper a longitudinal magnetic field was applied to the photomultiplier under investigation by placing the latter inside a long solenoid. The current supplying the solenoid was controlled to 1%. The field was uniform along the length of the photomultiplier, the fall-off at the edges being loss than 20%.

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The Behaviour of Some Types of Photomultipliers in a Weak Magnetic

solenoid. The resolution curve is shown dotted. oersted the total sensitivity increases by 10-15% while the best resolution is observed at 6 persted. Experiments have shown that the changes indicated by Fig 1 are due mainly to the effect of the magnetic field on the electrons between the photocathode and the first dynode. The remaining part of the photomultiplier is practically independent of the effect of the magnetic field in the range 0-20 persted. When the field is increased to 00 oersted the total sensitivity is reduced When the field by a factor of . Figs 2 and 3 show identical curves for other photomultipliers while Fig 4 shows the effect of the magnetic field on the rise time for two different photomultipliers. Results have shown that the venetian blind section is the least sensitive to magnetic fields and the greatest magnetic field effects occur at the "input" of photo-Card 2/3

SOV/120-59-1-40/50

The Behaviour of Some Types of Photomultipliers in a Weak Magnetic

multipliers. There are 4 figures and 2 Soviet references. ASSOCIATION: Radiyevyy institut AN SSSR (Radium Institute, Academy of Sciences of the USSR)

SUBMITTED: January 14, 1958.

Card 3/3

SOV/120-59-4-15/50

AUTHORS: Nemilov, Yu. A., Pisarevskiy, A. N., Soshin, L. D.

A Form of Distortion in Line Spectra Produced by NaJ(T1)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 72-73 ABSTRACT:

A 128-channel analyzer is used with 660, 280 and 70 keV Y-rays to show that some of the crystals examined in the previous paper in fact split monochromatic lines into two (Fig 1 shows some examples of the resulting spectra for one crystal with the sources in various positions). It is concluded that the Kyropoulos method gives perfect crystals, and that the Stockbarge: method schetimes gives faulty ones. The paper contains 1 figure and 3 references, 2 of which are

ASSOCIATION: Radiyevyy institut AN SSSE (Radium Institute, Academy of SUBMITTED: June 6, 1958.

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21(7) SOV/48-23-2-18/20 AUTHORS: Nemilov, Yu. A., Pisarevskiy, A. N., Soshin, L. D.

 γ Rays in the Decay of As 78 (γ -Luchi pri raspade As 78) TITLE:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,

Vol 23, Nr 2, pp 255-256 (USSR)

ABSTRACT:

According to references 1, 2 also γ rays of 0,27 and 0.610 Mev were determined in the decay of As⁷⁸ (τ = 90 min). The investigations of this paper have shown that in the decay

of As⁷⁸ ($\tau = 5-6$ min) a line is found at 500 kev, strong lines for

τ=90 min at 270, 610, 800, 1280 and 2680 kev and weaker lines at 80, 345, 690, 1200, 1620, 1880, 2040 and 2160 kev. The lines obtained (τ = 90 min) are attributed to transitions in the As⁷⁸ $\xrightarrow{\beta}$ Se⁷⁸ decay; the 500 kev line ($\tau = 5$ min) cor-

responds to the transition from a metastable to a basic state of ${\rm As}^{78}$, which then decays to ${\rm Se}^{78}$ in the reaction mentioned. A scheme of the decay with all transitions obtained is given. The authors thank A. N. Protopopov and his coworkers for

Card 1/2 neutron irradiation of the isotopes. There are 1 figure and

 γ Rays in the Decay of As 78

501/48-23-2-18/20

4 references, 2 of which are Soviet.

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR (Radium Institute imeni V. G. Khlopin of the Academy of

Sciences, USSR)

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